

Amendments to the Claims

1. (Currently Amended) A method of generically emulating devices in a device connectivity protocol, the method comprising:

processing, in a device emulator a description of a device to be emulated in the device connectivity protocol, the description specifying a set of actions of the device to be emulated;

in response to receiving an action request at the device emulator per the device connectivity protocol, validating, in the device emulator, to which action out of the set of actions specified in the description the action request matches;

upon validating an action to which the action request matches, performing producing, at the device emulator, a default behavior-consistent-with response, the response based on the description such that, through the response the device emulator emulates operation of the device to be emulated.

2. (Currently Amended) The method of claim 1 wherein ~~performing~~ producing the default ~~behavior~~ response comprises producing a response message containing a default value consistent with a data type specified for a return parameter of the action in the description.

3. (Currently Amended) The method of claim 1 wherein ~~performing~~ producing the default ~~behavior~~ response for an action having a set of input and output parameters corresponding to state variables of the device comprises:

setting the corresponding state variables of the device to values of the respective input parameters contained in the action request;

producing a response with output parameters set to values of the corresponding state variables of the device; and

producing an eventing message if the action modified any of the evented variables.

4. (Currently Amended) The method of claim 1 further comprising:

providing hooks to interface user-provided action ~~behavior~~ response implementations, if any, for the set of actions;

upon validating the action request to match the action, first checking whether there is a user-provided action behavior response implementation for the action; and

performing producing the default behavior response consistent with the description if there is no user-provided action behavior response implementation, and otherwise performing the user-provided action behavior response implementation for the action.

5. (Currently Amended) The method of claim [[1]] 4 wherein the hooks interface user-provided action behavior response implementations of at least one action out of the set of actions but not every action out of the set of actions.

6. (Original) The method of claim 1 further comprising:
applying a defect behavior to messages produced to emulate the device in the device connectivity protocol;

7. (Original) The method of claim 6 wherein the defect behavior is applied to packets of a particular type.

8. (Original) The method of claim 6 wherein applying the defect behavior comprises invoking a user-provided implementation of the defect behavior.

9. (Original) The method of claim 1 further comprising randomly applying a defect behavior out of a set of defect behaviors to messages produced to emulate the device in the device connectivity protocol.

10. (Currently Amended) A method of emulating devices in a device connectivity protocol, the method comprising:

reading a defect configuration representing in a tagged text format at least one defect behavior to be applied to a type of packet transmitted from an emulated device per the device connectivity protocol;

upon the emulated device producing a packet of a type for which a defect behavior is represented in the defect configuration, and before transmitting the packet, applying the defect behavior to the packet; and

transmitting the packet from the emulated device as modified by applying the defect behavior.

11. (Original) The method of claim 10 wherein applying the defect behavior comprises invoking a user-provided implementation of the defect behavior.

12. (Original) The method of claim 11 further comprising randomly applying a defect behavior out of a set of defect behaviors to messages produced to emulate the device in the device connectivity protocol.

13. (Currently Amended) Computer-readable media having stored thereon a software framework of a generic device emulator for execution on a computer to provide emulation of an operation of a device within a device connectivity architecture consistent with a textual description of the device, wherein the description of the device specifies data formats of requests and responses for a set of actions that the device is capable of, the generic device emulator comprising:

program code for receiving action requests directed to the device within the device connectivity architecture;

program code for validating whether an action request matches that of an action specified in the description; and

program code for performing a default behavior producing a response for the action consistent with the data format specified in the description, thereby emulating operation of the device for the action.

14. (Previously Presented) The computer-readable media of claim 13 comprising:

program code for providing hooks to interface user-provided action behavior implementations of one or more actions out of the set of actions; and

program code for checking upon validating that an action request matches that of the action specified in the description whether a user-provided action behavior implementation is presently hooked for the action; and

program code operating in a case that a user-provided action behavior implementation is presently hooked for the action to invoke the user-provided action behavior implementation in place of the default behavior.

15. (Original) The computer-readable media of claim 13 wherein performing the default behavior comprises producing a response message containing a default value consistent with the data format of the response specified for the action in the description.

16. (Original) The computer-readable media of claim 13 wherein the program code for performing the default behavior for the action in which the data format of the request and response has a set of input and output parameters corresponding to state variables of the device comprises:

program code for setting the corresponding state variables of the device to values of the respective input parameters contained in the action request; and

program code for producing the response with output parameters set to values of the corresponding state variables of the device.

17. (Previously Presented) The computer-readable media of claim 13 further comprising:
program code for reading a defect configuration representing in a tagged text format at least one defect behavior to be applied to a type of packet transmitted from the emulation of the device within the device connectivity architecture;

program code for applying the defect behavior to a packet upon producing the packet of a type for which a defect behavior is represented in the defect configuration; and

program code for transmitting the packet as modified by applying the defect behavior.